

Translation

10/537820  
PATENT COOPERATION TREATY

PCT/EP2003/013624



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

|   |   |   |
|---|---|---|
| Applicant's or agent's file reference<br>B02/0661PC                                       | <b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |   |
| International application No.<br>PCT/EP2003/013624  | International filing date (day/month/year)<br>03 December 2003 (03.12.2003)   | Priority date (day/month/year)<br>04 December 2002 (04.12.2002) |
| International Patent Classification (IPC) or national classification and IPC<br>C01B 3/02 |   |   |
| Applicant<br>BASF AKTIENGESELLSCHAFT  |   |   |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

|   |  |
|---|--|
| Date of submission of the demand<br>05 July 2004 (05.07.2004) | Date of completion of this report<br>20 June 2005 (20.06.2005) |
| Name and mailing address of the IPEA/EP                       | Authorized officer   |
| Facsimile No.   | Telephone No.  |

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/013624

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
 pages \_\_\_\_\_  
 pages 1-11 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
 pages \_\_\_\_\_  
 pages 1-9 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the drawings:  
 pages \_\_\_\_\_  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

|                               |        |     |     |
|-------------------------------|--------|-----|-----|
| Novelty (N)                   | Claims | 1-9 | YES |
|                               | Claims |     | NO  |
| Inventive step (IS)           | Claims | 1-9 | YES |
|                               | Claims |     | NO  |
| Industrial applicability (IA) | Claims | 1-9 | YES |
|                               | Claims |     | NO  |

### 2. Citations and explanations

(i) Reference is made to the following document:

D1: DE-C-477437 (IG FARBENINDUSTRIE)

(ii) The present application satisfies the requirements of PCT Article 33(1).

D1 (cited on page 2, line 34 to page 3, line 4 of the application) discloses the production of hydrocyanic acid by the cleavage of formamide in a V2A tubular steel reactor and, according to example 3, no catalyst is used in this method. V2A is the name (known to a person skilled in the art) of a steel consisting of iron, chromium and nickel. The subject matter of claims 1-8 of the present application differs from this prior art by virtue of the presence of atmospheric oxygen in the feedstock gas. The present method is therefore novel.

As a result of the fact that the reactor has no additional fittings and/or catalyst, the method in claim 1 can be carried out at a higher pressure than the method known from D1 without loss of conversion. The method therefore also involves an inventive step.

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Although D1 also describes the use of a reactor containing iron, chromium and nickel without a catalyst for the production of hydrocyanic acid from formamide, the use of such a reactor, as defined in claim 9, for the production of hydrocyanic acid from formamide in the presence of oxygen is not known from D1 and is inventive.

(iii) The description has not been brought into line with the amended claims.